A collaborative effort to build a modular course on Geoethics

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The need to promote ethical practice in the geosciences has long been recognized. Governmental boards for licensing professional geoscientists commonly require participation in continuing-education courses or workshops about professional ethics as part of the license-renewal processes. Geoscience-based companies and organizations of professional geoscientists have developed ethical codes for their members or employees. Ethical problems have been reported that involve the practice of science applied to Earth studies, interpersonal relationships within geoscience departments, business practices in geoscience-based companies, field work and the destructive modification of geologic sites, public policy development or implementation related to Earth resources, extractive resource industries, development that modifies landscapes in significant ways, interactions with the press and other media professionals, and even interactions with individuals or groups that have a significantly different worldview.

We are working toward the creation of a modular semester-long course in Geoethics. The modules will be free-standing, so each could be repurposed for use in a different course; however, the Geoethics course will provide an useful overall introduction to a variety of topics in ethics applied in the context of geoscience. Such a course might be an excellent capstone course for undergraduate geoscientists, or an introductory course for graduate students. The first module will cover basics intended to provide a common vocabulary of words, ideas and practices that will be used throughout the course. The remaining 5-6 modules will focus on aspects of geoscience in which ethical considerations play an important role. We feel that the geoscience classroom can provide a safe, controlled environment in which students can confront a representative sample of the types of ethical issues they might encounter in their professional or academic careers. Our goal is to help students develop effective strategies for working through these dilemmas. Our modules will utilize formal discussion, role-playing, debate, and reflective writing, among other techniques. We hope that this will lead students to internalize these lessons so that they lead careers in which ethical practice is an essential element.